

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference X 16331	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2004/022312	International filing date (day/month/year) 09/08/2004	(Earliest) Priority Date (day/month/year) 12/08/2003
Applicant ELI LILLY AND COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 23

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2004/022312

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A medication dispensing apparatus that provides a mechanical advantage. During dose preparing, a nut rotating element (410) and a screw element (368) are in a first axial arrangement such that a screwing motion of the nut rotating element and screw element relative to the apparatus housing that moves the elements a first axial distance from a home position screws a nut (364) along a drive member threaded shaft (362) a second axial distance different than the first axial distance. During dose dispensing, the nut rotating element and the screw element are in a second axial arrangement, whereby a screwing motion of the screw element relative to the housing back toward the home position advances a plunger (366) in the distal direction to axially advance the nut and thereby the drive member and a fluid container piston to dispense medicine.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/022312

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61M5/315

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 01/95959 A (NOVO NORDISK AS) 20 December 2001 (2001-12-20) cited in the application page 5, line 5 - page 7, line 32; figures 1-5	1-12, 15-22 13,14
X A	WO 99/38554 A (NOVO NORDISK AS) 5 August 1999 (1999-08-05) page 12, line 21 - page 18, line 2; figures 11-17	1-12, 15-22 13,14
X A	EP 0 937 471 A (BECTON DICKINSON CO) 25 August 1999 (1999-08-25) paragraph '0012! - paragraph '0016!; figures 1-6	1-12, 15-22 13,14
	----- -/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention.

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

12 October 2004

Date of mailing of the international search report

18/10/2004

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Björklund, A

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/022312

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	✓ US 5 938 642 A (HIXSON DAVE ET AL) 17 August 1999 (1999-08-17) cited in the application figures 1-17	1-22
A	✓ WO 96/26754 A (SAMS BERNARD) 6 September 1996 (1996-09-06) cited in the application figures 1-12	1-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/022312

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0195959	A	20-12-2001	AU 7389001 A	24-12-2001
			CA 2412229 A1	20-12-2001
			CN 1441684 T	10-09-2003
			WO 0195959 A1	20-12-2001
			EP 1294418 A1	26-03-2003
			JP 2004503303 T	05-02-2004
			NO 20025994 A	13-02-2003
			TW 503117 B	21-09-2002
			US 2004059299 A1	25-03-2004
			US 2002052578 A1	02-05-2002
			ZA 200209998 A	10-12-2003
WO 9938554	A	05-08-1999	AT 197408 T	11-11-2000
			AU 748277 B2	30-05-2002
			AU 2265099 A	16-08-1999
			BR 9906857 A	14-11-2000
			CA 2305634 A1	05-08-1999
			CN 1277558 T	20-12-2000
			DE 69900026 D1	14-12-2000
			DE 69900026 T2	10-05-2001
			WO 9938554 A1	05-08-1999
			DK 1003581 T3	18-12-2000
			EP 1003581 A1	31-05-2000
			ES 2153711 T3	01-03-2001
			GR 3035145 T3	30-04-2001
			HU 0003920 A2	28-03-2001
			JP 3270761 B2	02-04-2002
			JP 2002501790 T	22-01-2002
			NO 20001559 A	30-06-2000
			PL 341395 A1	09-04-2001
			PT 1003581 T	30-04-2001
			RU 2214286 C2	20-10-2003
			TW 445157 B	11-07-2001
			US 6004297 A	21-12-1999
			US 6235004 B1	22-05-2001
			ZA 9900714 A	17-08-1999
EP 0937471	A	25-08-1999	US 6221053 B1	24-04-2001
			CA 2261475 A1	20-08-1999
			EP 0937471 A2	25-08-1999
US 5938642	A	17-08-1999	AT 193833 T	15-06-2000
			AT 246528 T	15-08-2003
			AU 696439 B2	10-09-1998
			AU 4863796 A	23-09-1996
			CA 2213682 A1	12-09-1996
			CY 2179 A	23-08-2002
			DE 69608833 D1	20-07-2000
			DE 69608833 T2	30-11-2000
			DE 69629391 D1	11-09-2003
			DE 69629391 T2	09-06-2004
			DK 730876 T3	31-07-2000
			DK 879610 T3	24-11-2003
			EP 1304129 A2	23-04-2003
			EP 0730876 A2	11-09-1996
			EP 0879610 A2	25-11-1998
			ES 2147346 T3	01-09-2000
			ES 2203880 T3	16-04-2004

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/022312

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5938642	A	GR 3034256 T3	29-12-2000
		IL 117319 A	28-03-2004
		JP 2002503116 T	29-01-2002
		JP 2004073889 A	11-03-2004
		NO 974073 A	28-10-1997
		NZ 302558 A	29-11-1999
		PT 730876 T	30-11-2000
		PT 879610 T	31-12-2003
		SI 730876 T1	31-12-2000
		SI 879610 T1	31-12-2003
		WO 9627400 A1	12-09-1996
		US 6001089 A	14-12-1999
		US 6221046 B1	24-04-2001
		ZA 9601845 A	08-09-1997
WO 9626754	A	06-09-1996	
		EP 0918555 A2	02-06-1999
		WO 9626754 A2	06-09-1996